

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**Application Review**

**Issue Date:**

**Region:** Raleigh Regional Office  
**County:** Person  
**NC Facility ID:** 7300082  
**Inspector's Name:** Matthew Mahler  
**Date of Last Inspection:** 12/08/2020  
**Compliance Code:** 3 / Compliance - inspection

<b>Facility Data</b>	<b>Permit Applicability (this application only)</b>
<p><b>Applicant (Facility's Name):</b> CertainTeed Roxboro Wallboard Facility</p> <p><b>Facility Address:</b>                  CertainTeed Roxboro Wallboard Facility                  921 Shore Road                  Semora, NC 27343</p> <p><b>SIC:</b> 3275 / Gypsum Products  <b>NAICS:</b> 32742 / Gypsum Product Manufacturing</p> <p><b>Facility Classification: Before:</b> Title V <b>After:</b>  <b>Fee Classification: Before:</b> Title V <b>After:</b></p>	<p><b>SIP:</b> 15A NCAC 02D .0515, .0516, .0521, .0524, .1100 and .111, 15A NCAC 02Q .0711  <b>NSPS:</b> Subparts OOO, UUU and IIII  <b>NESHAP:</b>  <b>PSD:</b> N/A  <b>PSD Avoidance:</b> 15A NCAC 02Q .0317  <b>NC Toxics:</b>  <b>112(r):</b> N/A  <b>Other:</b></p>

<b>Contact Data</b>			<b>Application Data</b>
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<p><b>Application Number:</b> 7300082.20A  <b>Date Received:</b> 05/28/2020  <b>Application Type:</b> Renewal  <b>Application Schedule:</b> TV-Renewal  <b>Existing Permit Data</b>  <b>Existing Permit Number:</b> 10024/T04  <b>Existing Permit Issue Date:</b> 09/07/2017  <b>Existing Permit Expiration Date:</b> 02/28/2021</p>
D. Neil Gresham, Jr. EHS Manager, Roofing Products and Southeast (919) 691-2073 200 CertainTeed Road Oxford, NC 27565	Paul Teale Plant Manager (336) 322-3611 921 Shore Road Semora, NC 27343	D. Neil Gresham, Jr. EHS Manager, Roofing Products and Southeast (919) 691-2073 200 CertainTeed Road Oxford, NC 27565	

**Total Actual emissions in TONS/YEAR:**

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2019	0.2300	17.34	14.37	27.80	21.09	0.5789	0.5519 [Hexane, n-]
2018	0.3300	28.60	22.55	47.23	36.53	0.9325	0.8888 [Hexane, n-]
2017	0.3800	36.67	3.52	59.25	44.76	1.22	1.16 [Hexane, n-]
2016	0.5100	47.73	38.77	76.10	56.01	2.23	1.46 [Hexane, n-]
2015	0.4400	48.99	35.95	107.16	48.84	1.96	1.28 [Hexane, n-]

<p><b>Review Engineer:</b> Alice Wessner</p> <p><b>Review Engineer's Signature:</b> _____ <b>Date:</b> _____</p>	<p><b>Comments / Recommendations:</b></p> <p>Issue 10024/T05  <b>Permit Issue Date:</b> _____  <b>Permit Expiration Date:</b> _____</p>
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## 1. Purpose of Application

CertainTeed Roxboro Wallboard Facility, Semora, Person County, North Carolina, has submitted a permit application to renew their current Air Permit 10024T04 that will expire February 28, 2021. The application will be processed according to renewal procedures in 15A NCAC 02Q .0515.

## 2. Facility Description

CertainTeed is a wallboard manufacturing facility. The facility utilizes DSG produced at the neighboring Duke Energy Progress' Roxboro Steam Station. The gypsum is conveyed from the wet scrubbers of Roxboro Plant to CertainTeed facility as a wet material via conveyors. The arriving gypsum may directly enter the process.

The facility includes different types of equipment (conveyors, silos, bins, screens, mixers, kettles, dryers, emergency generators, and heaters) to process wet gypsum and make wallboards.

## 3. Application Chronology

September 7, 2017	Air Permit 10024T04 (a minor modification) was issued with an expiration date of February 28, 2021
May 28, 2020	Permit application 7300092.20A was received for Title V renewal. The application was received within nine months prior to the expiration date.
January 27, 2021	Draft permit and permit review forwarded to supervisors for comments.
February 5, 2021	Received comments from Permitting Supervisor
February 8, 2021	Draft permit and permit review forwarded Matthew Mahler and Dena Pittman of the Raleigh Regional Office and DAQ Stationary Source Compliance Branch.
February 17, 2021	Received comments from RRO.
February 19, 2021	Draft permit sent to Neil Gresham of CertainTeed.
February 23, 2021	Received comments from CertainTeed.
XXXXXX XX, 2021	Permit issued.

## 4. Statement of Compliance

DAQ has reviewed the compliance status for this facility for the last five years. The results are listed below.

- On March 6, 2020, NCDAQ issued an NOV for submitting an incomplete annual compliance certification (ACC).
- On May 22, 2019, NCDAQ issued CertainTeed Roxboro Wallboard Facility an NOV for not recording the results of the monthly visual inspections of two bagfilters (ID Nos. ES-30 and ES-41) for August 2018 through February 2019. A violation of 15A NCAC 2D .0515 Particulates from Miscellaneous Industrial Processes.
- On March 8, 2016, NCDAQ issued CertainTeed Roxboro Wallboard Facility an NOV for failure to annually inspect four bag filters as required by 15A NCAC 2Q .0317.

All violations have been resolved.

During the most recent inspection conducted on December 8, 2020, Matthew Mahler of the Raleigh Regional Office indicated that CertainTeed Roxboro Wallboard Facility appeared to be in compliance with all applicable requirements and regulations.

## 5. Permit Changes

The following changes were made to the CertainTeed Roxboro Wallboard Facility, Air Permit No. 10024T04:

<b>Page No.</b>	<b>Section</b>	<b>Description of Changes</b>
Cover and Throughout	-	Updated all dates and permit revision numbers
Attachment	Insignificant Activities	Added insignificant activity IES-54
6, 7	2.1 A.2.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
8	2.1 B.2.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
11	2.1 C.2.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
12	2.1 D.1.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
13	2.1 E.1.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
14	2.1 F.1.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
16	2.1 G.2.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
20	2.1 H.2.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
22	2.1 I.1.d	Corrected reporting requirement language
23	2.1 I.3.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
25	2.1 J.2.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
26	2.1 K.1.c	Deleted "The Permittee shall establish "normal" for the sources in the first 30 days following the effective date of the permit." Updated noncompliance wording.
27	2.1 K.2 2.1 K.3	Update NSPS Update MACT
34	2.2 A.2.f	Added reference to "ES-42"
34	2.2 A.2.h and j	Deleted h and j and renumbered section.
36	2.2 A.3	Updated 15A NCAC 02Q .0711 language.
38-46	2.3	Updated General Conditions to Version 5.5.

## 6. Regulatory Review

CertainTeed Roxboro Wallboard Facility is subject to the following regulations. The facility's equipment and operations have not changed since the last minor modification in 2017. The permit was updated to reflect the most current stipulations for all applicable regulations, where necessary.

- 15A NCAC 02D .0515, Particulates from Miscellaneous Industrial Processes - CertainTeed particulate matter (PM) emissions from applicable sources (silos, saws, dry bins and wet mixer) are controlled by a bagfilter, except for exhaust units ES-39 and ES-40. To ensure PM emissions meet this standard, monitoring, recordkeeping, and reporting requirements apply to these sources. Continued compliance is anticipated.
- 15A NCAC 02D .0516, Sulfur Dioxide Emissions from Combustion Sources – This regulation applies to the Cage Mill DSG Dryer (ES-02) and the Wallboard Dryer Exhaust (ES-40). The sulfur dioxide emissions from these combustion sources must not exceed 2.3 pounds per million Btu (MMBtu) heat input. CertainTeed uses natural gas in all combustion sources and natural gas has negligible sulfur content, therefore, CertainTeed will comply with this standard and continued compliance is anticipated.
- 15A NCAC 02D .0521, Control of Visible Emissions – This regulation requires that emissions from applicable sources meet the 20% opacity except during period of start-up, shutdown and malfunction. Monthly visible emission observations are made on applicable sources. Continued compliance is anticipated.
- 15A NCAC 02Q .0317, Avoidance Conditions – More discussion on PSD is provided below in Section 6.
- 15A NCAC 02D .1111, Maximum Achievable Control Technology (MACT) – CertainTeed is subject to National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63 Subpart ZZZZ. More discussion on MACT is provided below in Section 6.

## 6. NSPS, NESHAP, PSD, CAM, and 112(r)

### NSPS

40 CFR 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants  
NSPS Subpart OOO regulates particulate emissions from each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading operation at this plant. Per federal regulation 40 CFR 60.672(a), the particulate matter emissions from the applicable sources (ES-01A, ES-01B, ES-03, ES-06, ES-07, ES-11, ES-12, ES-14, ES-19, ES-21 and ES-24), except during startup, shutdown, and malfunction, shall not exceed 0.032 gr/dscm [0.014 gr/dscf] (see Table 2 to Subpart OOO of Part 60). These sources are subject to the 7% opacity limit (ES-01C, ES-16, ES-20, ES-27, ES-30 and ES-43). This Title V renewal will not alter the operation or maximum particulate matter emissions for the existing units.

40 CFR 60 Subpart UUU – Standards of Performance for Calciners and Dryers in Mineral Industries  
NSPS Subpart UUU regulates particulate emissions from calciners (equipment used to remove chemically bound water from mineral material through direct or indirect heating) and dryers (equipment used to remove free water through direct or indirect heating) which includes ES-02, ES-09, ES-10 and ES-42. The calciners and calciners in series with dryers are limited to 0.04 gr/dscf and 10 percent opacity. Dryers not in series with the calciner that are subject to Subpart UUU are limited to 0.025 gr/dscf and 10 percent opacity. This Title V renewal will not alter the operation or maximum particulate matter emissions for the existing units.

40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR 60 Subpart IIII standards specify requirements for manufacturers and owners / operators of Stationary Compression Ignition Internal Combustion Engines (CI ICE). This standard applies to all the emergency generators at the facility. Per 40 CFR 60.4205(b), owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump

engines must comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202 for 2007 model year and later emergency stationary CI ICE. CertainTeed complies with the applicable Tier 2 emission standards listed in 40 CFR 89.112 for 750kW engine.

- NMHC and NO<sub>x</sub> (combined): 6.4 g/kW-hr
- CO: 3.5 g/kW-hr
- PM: 0.2 g/kW-hr

The engines are "constant speed," they are exempt per §89.113(c)(3). As per §60.4209, each emergency CI ICE is equipped with a non-resettable hour meter. As per §60.4211(e), an emergency engine may be operated for maintenance and readiness checks for up to 100 hours per year. Operation during an actual emergency is not subject to a limit on hours. CertainTeed will track engine operation time for maintenance and readiness checks. In addition, diesel fuel with a sulfur content of less than 15 ppm will be used. Continued compliance is anticipated.

### NESHAP

40 CFR 63 Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines

This regulation exempts emergency reciprocating internal combustion engines (RICE) from the emissions limitations and monitoring requirements. The two (2) installed RICEs at the Facility are for emergency use only; therefore, the emission requirements do not apply. CertainTeed will meet applicable requirements of this subpart by meeting all applicable requirements in 40 CFR 60 Subpart IIII.

### PSD

The County of Person is in attainment or unclassifiable/attainment for all promulgated National Ambient Air Quality Standards (NAAQS) in accordance with 40 CFR 81.334. PSD program applies to each major stationary source and each major modification in this County.

Based on the emissions calculations, this facility is a minor source; however, because several of the sources have the potential to emit uncontrolled emissions greater than the PSD thresholds, CertainTeed previously requested federally enforceable PSD avoidance conditions for facility-wide PM<sub>10</sub> and PM<sub>2.5</sub> emissions (**excluding ES-43, IES-46, ES-47, ES-49, ES-G1 and IES-G2**), limiting each to less than 250 tons per consecutive 12-month period. There have been no subsequent modifications to the facility that triggered the need for a PSD review.

### Compliance Assurance Monitoring (CAM)

The CAM rule (40 CFR 64; 15A NCAC 02D .0614) applies to each pollutant specific emissions unit (PSEU) at major TV facilities that meets all three following criteria:

- the unit is subject to any (non-exempt: e.g. pre November 15, 1990, Section 111 or Section 112 standard) emission limitation or standard for the applicable regulated pollutant.
- the unit uses any control device to achieve compliance with any such emission limitation or standard.
- The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source (i.e., 100 tons per year for criteria pollutants or 10/25 tons per year for HAPs).

### 112(r)

The facility is currently not subject to the 112(r) requirements as it does not store any regulated compounds exceeding the threshold levels.

## **7. Facility-wide Air Toxics (State enforceable Only)**

The facility is currently not triggered into NC's air toxics program (15A NCAC 02Q .0700 and 15A NCAC 02D .1100). Emissions limits of arsenic, benzene, formaldehyde, and chromium (vi) have been established on a source-by-source basis and included in the permit.

CertainTeed is not requesting an increase in emissions with this Title V renewal; therefore, there are no proposed changes to emission limits from those included in the previous Title V permit. The facility will continue to meet the TAP limits outlined in Section 2.2 B.2.a in the permit.

## **8. Facility-wide Emissions**

The beginning of this application review includes a summary of actual emissions for calendar years 2015 through 2019.

## **9. Public Notice/EPA and Affected State(s) Review**

A concurrent public notice period of 30 days and an EPA review period of 45 days are required for issuance of this Title V permit. A notice of the DRAFT Title V permit shall be made pursuant to 15 NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to the EPA. Also, pursuant to 15A NCAC 02Q .0522, a notice of the DRAFT Title V permit shall be provided to each affected State at or before the time notice is provided to the public according to 15A NCAC 02Q .0521.

EPA's 45 Day Review Period

Mr. Michael Sparks (USEPA Region IV) was provided a DRAFT permit for review on XXX, XX, 2021. The EPA 45-day review period ended on XXX, XX, 2021. **No comments were offered or received.**

Public Notice

The 30-day public notice of the DRAFT permit was posted on the NCDAQ website on XXX XX, 2021. **No comments were offered or received.**

## **10. Other Regulatory Considerations**

A PE seal is NOT required for this renewal application.

A zoning consistency determination is NOT required for this renewal application.

## **11. Recommendations**

The permit renewal application for CertainTeed Roxboro Wallboard Facility, Semora, Person County, North Carolina has been reviewed by DAQ to determine compliance with all the procedures and requirements. The DAQ has determined that this facility is complying or will achieve compliance, as specified in this permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 10024T05.